

Examiner by telephone in order to have a new election requirement issued to replace the outstanding restriction requirement.

REMARKS

The Examiner has issued a restriction requirement under PCT Rule 13.1 and 13.2 under the authority of 37 CFR 1.499, which calls for superseding PTO section 806 ("distinct inventions") in favor of PTO 1893.03(d) which describes the requirements for PCT Rule 13 "Unity of Invention." The Examiner states that the reason for the restriction requirement is a lack of unity of invention but then merely proceeds to define alternative features or species only in dependent claims as distinct inventions, and then asserts that these species have no common technical feature. This is completely incorrect and renders the restriction requirement inconsistent and nonsensical.

First, lack of unity relates to distinct invention not the limitation on the number of species to be examined (see MPEP 1893.03(d) and corresponding AI examples). For instance, example 12 of the Administrative Instructions under the PCT, Annex B, Part 2 (page AI-59, AI-60 in the MPEP) discloses that as long as dependent claims depend from the same independent claim, then they share a technical feature and no lack of unity exists. In this case, it is impossible to have a lack of unity of invention between dependent claims when an inventive concept is in the independent or generic claim.

It is Applicants belief that the Examiner was attempting to issue an election of species requirement under 37 CFR 1.146 directed to a limitation for a reasonable number of species. Preliminarily, Applicant advises the Examiner to confirm that the preliminary amendment that was filed with the filing of this application to remove all multiple dependency from the claims was entered.

Applicant proceeds to define the Examiners stated species as follows:

The Examiner first defined groups:

I diffusion medium with lead only,

II diffusion medium with bismuth only, and

III diffusion medium with both lead and bismuth.

None of these groups are restricted to one particular claim. Claims 7-9, 23-25, 41 and 47 state "lead and/or bismuth." Unity of invention exists because these claims all depend from independent claims 1, 17 or 40 that all at least have one same or similar technical feature. While Applicant provisionally elects lead (Group I), no particular claim is related to only this feature so no claim election is possible. Thus, ALL of the claims are readable on this species.

Second, the Examiner defined species A-C as follows:

A. moderator is carbon,

B moderator is deuterated water, and

C no moderator is present.

The Examiner forgot another group, where the moderator is present but no specific material is called for: claims 4-5, 7-9 and 19-20. Claims 6 and 21 recite "carbon or deuterated water" while claim 22 only recites carbon. Here, claims 1-3, 10-16, 17-18, 23-29, 40-48 do not recite a moderator but they are not mutually exclusive of a moderator either! In other words, a moderator can be included with these claims. Thus, claims 1-3 and 17-18 are respectively generic to claims 6 and 21-22. Furthermore, claims 4-5 and 19-20 are generic to choice A and B since they do not recite a specific material. Of those claims limited by the species A-B, Applicant provisionally chooses carbon for claim 6, 21 and 22. Since this does not eliminate any

claim directed only to water, all of the claims are readable on this species. Again, these claims cannot have a lack of unity of invention by definition.

Third, the Examiner defined species a-n which we related to the claims as follows:

a-c	claims 10, 26
d	claims 11, 27
e-g	claims 16
h	claims 13, 45
i-k	claims 14 & 16, claims 46-47
l	claims 15, 48
m-n	claims 14-16, 46-48

Again no lack of unity exists because the Examiner cannot define different inventions merely by pointing to dependent claims in the same claim family (tree). Note that here b and c mention bismuth which should be beryllium. Applicant provisionally elects lead only, choice e, // claim 16 that recites "lead and/or bismuth" rather than claims 10-11, 13-15, 26-27 and 45-48.

Finally, the Examiner defined groups AA-MM where JJ-MM are not even expressly and directly claimed. The groups are otherwise defined by claims as follows:

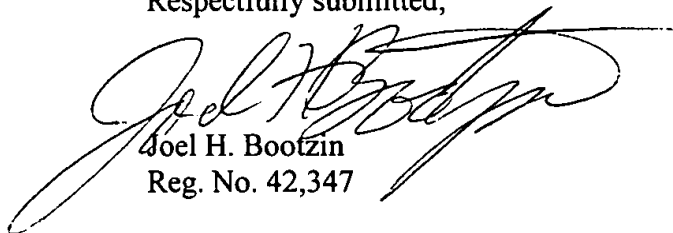
AA	claims 29-30
BB	claims 31-32
CC	claims 33-34
DD	claim 36
EE	claim 38
FF	claim 39
GG	claim 42
HH	claim 43

Here, Applicant elects BB (claims 31-32) rather than claims 29-30 and 33-34, 36, 38, 39, 42 and 43 which are directed to other types of exposed material.

Applicant also points out that these elections are made with traverse in that Applicant respectfully submits that in Section 6 of the Office Action, the Examiner alleges a lack of unity of invention under Rule 13.2 PCT for the reasons that the general inventive concept would not define about the prior art. The Examiner supports his position by a reference to the International Search Report; however, the International Preliminary Examination Report was entirely favorable to the patentability of the claimed subject matter.

Applicant submits that claim 1 links the inventions cited in the various species by the Examiner and is generic to all the species allowable. Thus, lack of unity of invention is not the correct posture for this rejection, which makes the definition of the species by the Examiner difficult to understand, especially for Groups I-III and A-C. Applicant again urges the Examiner to reissue a proper election requirement.

Respectfully submitted,



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